

BROOKHAVEN BULLETIN



Volume 25, Number 23

June 10, 1971

Dr. Leslie F. Nims, **BNL Biologist, Dead**

Dr. Leslie F. Nims, Senior Biologist and former head of the Biology Department at Brookhaven, died suddenly on Friday, June 4 of a heart attack. He was 65 years



Leslie F. Nims

Dr. Nims was widely known for his work on Physiology, Radiation Biology, and Membrane Theory. During the 24 years that he was at Brookhaven he was author or co-author of scores of papers on radiation effects on biological systems. Dr. Nims became Chairman of the newly formed Biology Department of Brookhaven in 1947, and served in that administrative capacity until 1950, when he resigned as Chairman to resume full time research activities. He worked in the field of effects of radiation on animal metabolism. He studied the effects of whole-body radiation in rats on the actions and interactions of hormonal systems, using blood sugar and liver glycogen changes as indicators of hormonal activity.

Recently Dr. Nims was concerned with membrane permeability. He made precise measurements of the steady-state distributions of certain substances across various membranes resulting from the energy released from enzymatic catalysed chemical reactions. Theoretical studies included an explanation of the observed differences in the permeability coefficients of membranes as determined with isotopic tracers and by classical osmotic methods

Dr. Nims was born in Salt Lake City, Utah, on June 15, 1906. He graduated from the University of Utah with a B.S. in Mathematics in 1927. In 1928 he received his Master's degree in Physical Chemistry from the same university, and in 1931 he was awarded the Ph.D. in Physical Chemistry from Yale University. Before joining Brookhaven National Laboratory in 1947, Dr. Nims was on the staff of the Yale University School of Medicine in New Haven, Connecticut.

Dr. Nims was a member of the American Physical Society, the American Association for the Advancement of Science, the American Physiological Society, the New York Academy of Sciences, the American Biophysics Society, and the Radiation Research Society. He was a member of Phi Kappa Phi, Alpha Xi Sigma, and Sigma Xi. In 1965 he delivered the Forbes Memorial Lecture at Woods

Dr. Nims is survived by his wife, the former Winabeth Stephenson, of Library Lane, Brookhaven, and three children, Mrs. Dwight Schoeffler of Jackson Heights, New York; Mrs. James Tasi of Port Jefferson, and Leslie I. Nims of Bloomington,

Visiting hours for meditation were held at the Ruland Funeral Home, in Patchogue, on Tuesday. June 8. Following cremation, a memorial service will be held at St. James Episcopal Church in Brookhaven at a date to be announced.

Evolution of Genetic Systems Explored At Biology Symposium

Over 1300 species of viruses, bacteria, plants and animals were investigated for their DNA content per cell and per chromosome and the relationship it has to radiation sensitivity. It was found that chromosome size varies widely even within one group of organisms and that the larger the chromosome volume (with high DNA content) within a cell, the more sensitive the cell is to damage by ionizing radiation.

Published by the Brookhaven National Laboratory Public Relations Office

The research was done by a team headed by Dr. Arnold Sparrow of the Biology Department of Brookhaven National Laboratory. The results were presented on Wednesday, June 9, before a symposium on "Evolution of Genetic Systems," held at Brookhaven and attended by over 150 biologists and geneticists. This was the Laboratory's 23rd annual biology symposium, which has become world famous for its in-depth review of a single topic each year. Dr. Sparrow's paper, "Survey of DNA Content and Evolutionary Trends," was co-authored by Drs. H. James Price and Alan Underbrink. Of the seventeen papers presented at the symposium, two were from the host Brookhaven National Laboratory and the rest from 14 different universities, including Cambridge, England, and the University College of Wales, England.

Under the symposium theme of "Evolution of Genetic Systems," sessions were held on the topics of At the Molecular Level; Molecular to Gene Level; Gene Group to Chromosome Level; Evolutionary Changes in Kind and Amount of DNA; and At the Extrachromosomal Level. The evening lecture was delivered by Dr. C.R. Woese of the University of Illinois who spoke on Evolution of Cellular Information, Transfer Mechanisms and Macromolecular Complexity. This year's Symposium was organized under the chairmanship of Dr. H.H. Smith, who was assisted by Drs. H.J. Price, A.H. Sparrow, F.W. Studier, and J.D. Yourno.

Dr. Sparrow's report, which included a survey of other scientists' work as well as research conducted at Brookhaven stated that there appears to be a general trend of increasing cellular DNA content with increasing evolutionary complexity. For example, plants and animals have more DNA than viruses and bacteria, to the extent that some amphibian vertebrates and flowering plants have 100 million times the amount of DNA of the smallest viruses. Dr. Sparrow emphasized the words "general trend" because oddly enough, some of the flowering plants such as lilies and trilliums, and the amphibians such as salamanders and lungfishes have more DNA than man.

Although the evolution of more advanced organisms generally resulted in an increased DNA content, the evolution from the advanced to the complex organisms often resulted in a reduction of DNA. This is thought to be because genes can be duplicated many times along the chromosome within a cell, therefore making it likely that much of the differences in DNA content in higher organisms is due to the difference in the extent of gene redundancy rather than differences in the number of

It is speculated that redundancy may commonly exist in genes coding for proteins, and that increases in DNA content may represent, in part, the results of selection for duplications of genes whose products previously limited evolutionary adaptability. Evolutionary decreases in DNA values may represent losses of nonfunctional or over-reiterated DNA sequences which have lost their adaptive value. The data thus suggest that the amounts of DNA per cell and per chromosome have been influenced in both directions by strong selective pressures.

In the other host paper, Dr. Joseph Yourno reported on his research team's experiment in gene fusion, where an RNA messenger chain had a successive stop and start signal mutantly erased between two adjacent genes producing different proteins. Thus was reproduced a single bifunctional protein in place of the usual two, single-function proteins.

Energy Seminar

The Thursday evening Energy Seminar will hold two additional sessions:

June 17 - Thermal Pollution - Vance L. Sailor

June 24 - Future Energy Sources? - C.R. Flatau and P.F. Palmedo

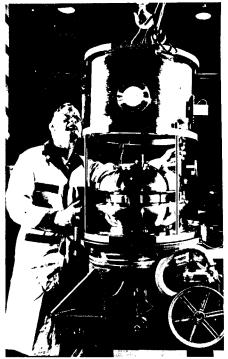
The group meets at 8 p.m. in the North Room of the Brookhaven Center. If an alternate meeting place is necessary, the location will be posted at the Center. Anyone interested is welcome to attend.

Fast Chopper Celebrates Five Years Of Operation

This week 5 years of experimental operation was completed by the fast neutron chopper at the HFBR. Designed to produce neutron pulses for nuclear physics experiments, the 700 lb. rotor has logged a total of 39,000 operating hours in its 5 years of operation, and spun through a distance of almost 12 million miles.

The chopper is the basic element in a complex measuring system designed to measure the gamma-ray decay of resonant nuclear states formed by neutron capture. These decays provide a picture of the structure of nuclei and the mechanism by which the incoming neutron excites the target nucleus. Much of the information obtained by the device is relevant to the Nuclear Energy program, although the primary objective is fundamental research.

One of the most successful and productive instruments of its kind, the chopper has been used in over 1000 separate experimental runs, on measurements of over 50 different isotopes.



Fred Paffrath, Physics, removes the outer casir of the Fast Neutron Chopper at the HFBR. This Machine was first used in neutron physics experiments on June 7, 1966. It has run continuously since then with only occasional shutdowns for routine maintenance.

Designed by Morris Reich and Robert Chrien, the chopper system was engineered by Morris Reich, Anthony Meade and Thomas Brown of Rudolph Hodor's Physics Engineering group, with installation and test assistance by Joseph Russo and Warner Hays. Edward Sperry and Louis Blum produced the detailed drawings. The excellent performance of the rotor system is assured by the supervision of Fred Paffrath who has constructed several significant improvements. Vito Manzella is responsible for the electronics maintenance and development for the chopper and its associated on-line computer equipment.

Scientists at Brookhaven using the device include Robert Chrien, Oren Wasson, George Cole and Robert Graves from the Physics Department and M.R. Bhat, Said Mughabghab, and Donald Garber from the Department of Applied Science.

BNL'S Twentieth Annual Summer Student Program Starts Monday Morning

Seventy-eight students from 48 different colleges and universities throughout the United States will arrive on Monday to spend eleven weeks of their summer vacation at Brookhaven National Laboratory.

BNL's Summer Student Program was initiated in 1952 for the purpose of providing practical research experience in the areas of greatest interest to each student under the guidance of a Laboratory staff member. A total of 1767 students have participated in the program since its in-

The program is geared to provide maximum benefit to the students. They are encouraged to attend seminars in any of the Laboratory's eight departments and to interact with as many of BNL's scientific disciplines as possible during the summer.

Summer is also the busiest time at the Laboratory for visiting faculty members from a wide variety of colleges and universities. As a special summer feature, Laboratory staff members are preparing a series of weekly seminar programs on subjects which will be largely selected by the students themselves. Visiting faculty and BNL staff members will be encouraged to attend and participate in the seminar

This year's participants include 29 students majoring in physics, 16 in chemistry, eight in biology, seven in mathematics, six in medicine, four in biochemistry, two each in chemical and electrical engineering, and one each in mechanical engineering, nuclear engineering, and communications. Of these, 16 will be in the Physics Department, 15 in the Department of Applied Science, 13 in the Biology Department, 11 in the Chemistry Department, nine in the Accelerator Department, six in the Applied Mathematics Department, four in the Medical Department, three in the Instrumentation and Health Physics Department and one in Administration.

The students were selected on the basis of their academic performance plus several letters of reference. Approximately 500 students applied for the 78 openings this year. Of those selected, 32 are graduating seniors and 47 have just completed or are in their junior year. Three schools, with four students each, are tied for having the most students. They are Jackson State, Jackson, Miss.; Carnegie-Mellon University, Pittsburgh, Pa.; and the University of Illinois, Urbana and Champaign, Illinois. Twentyone of the 78 are from predominantly black schools, some of whom have been at Brookhaven previously as participants in the Brookhaven Semester Program. In this program, approximately six students at a time spend an entire school semester at the Laboratory and receive full college credits for their research and formal course work.

The Summer Student Program is funded by the Division of Nuclear Education and Training of the U.S. Atomic Energy Commission. The students are housed in dormitories and each receives travel expenses plus 100 dollars per week for living ex-

Lunch-Hour Theatre

A twin-bill of two short films produced for the scientific market will be shown on Friday, June 11 at 12:30 p.m. in Berkner

Aspects of Symmetry is a delightful view of all of the modes of symmetry in a practical rather than a theoretical vein. Ballet dancers, cookies on a plate, and the headon view of a motorbike are included in this 15-minute color film.

Powers of Ten, the second film, takes up where 2001 leaves off with a stimulating, whirlwind mental and visual tour of the macrocosmos and the microcosmos. The action of the film is so rapid that you will want to hold on to your seat. A nineminute color whirl.

Brookhaven Bulletin June 10, 1971



Dr. Edward Sayre (center) points out details of painting to group of art curators and conservators from the New York Metropolitan Museum of Art. Dr. Sayre and Dr. Garman Harbottle (holding painting) explained Brookhaven's research in the arts and archaeology to the visitors.

Selected Reading

Am. Scientist 59, May-June 1971

The role of fundamental research in an advanced society. W.D. McElroy. 294-7 Advances and challenges in science in 1970. C.P.

Haskins. 298-307

Minerva 9, April 1971

A dilemma of American science and higher educational policy: The support of individuals and fields versus the support of universities. J.T. Wilson, 171-96

On some positive aspects of the economics of the brain drain. G. Psacharopoulos. 231-42

Phil. Trans. Roy. Soc. London 269A, December 17, 1970

A Symposium on the Impact of the Natural Sciences and Archaeology. T.E. Allibone, M. Wheeler, I.E.S. Edwards, E.T. Hall and A.E. A. Werner, organizers. 1-185

Arrivals & Departures

Arrivals James E. WhitfieldMedical

Departures Lawrence T. Arnold.....Accelerator Guy Daelemans Accelerator Lawrence J. Hynes......Accelerator Stewart Senator.......Mech. Engrg.

Radio Club Meeting

The regular monthly meeting of the Radio Club will be held on Thursday, June 10, 8 p.m. at the Recreation Building.

Weekly Calendar

Tuesday, June 15

Particle Physics Seminar

SLAC Plans for a Spectrometer

D. Leith, SLAC

Biomedical Engineering Seminar 1:00 p.m., Chem. Sem. Rm., 33 Lewis Rd.

Absorption Edge Transmission Scanning

H.L. Atkins, Medical Dept., Brookhaven National Laboratory

Solid State Seminar

Solid State Seminar

1:30 p.m., Sm. Sem. Rm., 20 Penn. St.

10:00 a.m., Seminar Room, 20 Penn. St.

Interaction between Electrons and Absorbed Gases Prof. John Hudson - R.P.I.

Physics Colloquium

3:30 p.m., Seminar Room, 20 Penn. St.

Preliminary Results of an All Sky X-ray Survey

Herbert Gursky, American Science & Engineering, Inc.

Thursday, June 17

1:30 p.m., Seminar Room, 20 Penn. St.

Ultrasonic Attenuation in Helium K. Kehr, Cornell University

Tuesday, June 22

2:00 p.m., Instr. Sem. Rm., Bldg. 535

Instrumentation Seminar

Timing with Ge Detectors

A.H. Cho, Instrumentation & Health Physics Dept., Brookhaven National Laboratory

Wednesday, June 23

3:30 p.m., Chem. Seminar Rm., 33 Lewis Rd. **Chemistry Seminar** 1,4-Dilithio-butadiene Reagents and Their Application to Metallocycle Chemistry

Marvin Rausch, University of Massachusetts

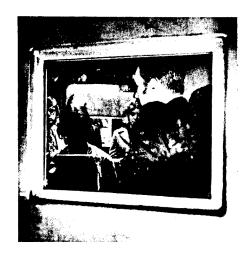
Announcement

Myron Strongin will give a series of lectures on the Fundamentals of Superconductivity with emphasis on the phenomenological theory. The lectures will be presented on successive Wednesday mornings at 9:30 a.m. in the Snyder Lecture Hall of the Accelerator Department. The first of this series will be presented on June 30.



Peter Mattern gives a demonstration of thermoluminescence to the visiting group from the Metropolitan museum.

--Humphrey



Seen through the air-lock window at the Medical Research Reactor, a group of art conservators go to watch the procedure for authenticating paintings at Brookhaven.

Here and There

Claire Lamberti

Dr. George A. Baker, Jr. (Applied Math) presented a talk entitled "The Pade Approximant in Theoretical Physics" at the Courant Institute on May 28.

Powell Richards, William Eckelman and Elliot Lebowitz (all DAS) will present papers and participate in the 18th Annual Society of Nuclear Medicine Meeting in Los Angeles, California from June 28 to July 2. Mr. Richards is conducting an invited teaching session on the subject of medical radionuclide production and is an invited discussant for a paper entitled "Synthesis of Low-Molecular-Weight ^{99m}Tc-Labeled Compounds." Dr. Eckelman is also an invited discussant for a paper entitled "Erythrocyte Agglutination by Ionic Al(III) in Generator Eluate."

Dr. David Berley (Accel. Dept.) was an invited speaker at Princeton University on May 24; the title of his talk was "AGS Experimental Areas and Experimental Pro-

Said F. Mughabghab of the National Neutron Cross Section Center (DAS) presented a colloquium entitled "Search for Simple Mechanisms in Neutron Capture" at Rensselaer Polytechnic Institute, Troy, New York on May 17.

Dr. Barry Gordon (DAS) will present a paper at the 5th Annual Conference on Trace Substances in Environmental Health, Columbia, Missouri from June 29 to July 1.

Irwin Lewis (Applied Math) presented a paper entitled "TEST-An Engineering Oriented Compiler," at the Canadian DECUS Symposium in Fredericton, New Brunswick, Canada on June 9.

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Published Weekly for the Employees of Brookhaven National Laboratory

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> Norbert J. Dernbach Public Relations Officer



Charles Flood (right) shows a model of the Medical Research Reactor to art conservators.

Salary Increase Schedule Clarified

On March 24, Laboratory Director Dr. Maurice Goldhaber addressed Brookhaven's senior staff members. His remarks were published in full in the April 8 issue of the Brookhaven Bulletin.

At the time Dr. Goldhaber announced that the effective date for salary increases for FY 1972 would be deferred for some employees and said that, "Since the wage and salary budget is about 80% of our total budget, these deferments in salary increase will save about half a million dollars, and in this way will save some people.

The actual schedule for those people receiving salary increases in FY 1972 will be as follows:

The effective date for wage employees receiving increases will be July 5, 1971.

The effective date for those monthly employees in salary grades NE 1 to NE 4 inclusive and E 1 to E 3 inclusive who are receiving increases will be August 1, 1971.

Employees will be notified June 24 of increases effective July 5 and August 1.

The effective date for those employees classified as Assistant Scientist, Associate Scientist, employees in grade NE 5 and grades E 4 to E 8 inclusive receiving increases will be November 1, 1971.

The effective date for all other monthly employees receiving increases will be January 1, 1972.

Employees will be notified in late October of increases effective November 1, 1971, and January 1, 1972.

This policy is a compromise necessitated by the need to minimize the number of employees losing their jobs and simultaneously provide our remaining employees with increases which at least partially offset the salary erosion caused by inflation.

Employees covered by bargaining unit contracts will receive wage adjustments in accordance with the terms of those con-

Softball Players Needed For Men's League

Please contact Recreation Office, Ext. 391 or 2808, if interested.

Pool - Gym Procedures

Admission to the Swimming Pool and Gymnasium will be granted only to: employees; members of employees' families (members of the same household); and, guests of above.

An employee or a family member will be permitted to bring no more than five guests per family. Employees or responsible family members must accompany and supervise their guests. If several employees bring a group of youngsters, they must accompany and supervise them in the Pool and Gvm areas.

Persons may be denied the privilege of using the recreation facilities for improper conduct or abuse of the equipment.

Parents bringing children to use the Pool should not do so before 1:15. Children are to remain in the designated waiting area near the Pool's entrance until the Pool opens for them at 1:30, and when waiting to be picked up by parents. The Gymnasium will not be available for this purpose

Children of employees are not permitted in the Gym before 5 p.m. unless accompanied by an adult. The Gym will close each night at 9:30 p.m. and be closed on weekends.

Employee activity, organized or informal, has first priority in the Gym. Incidental visitor activity is only permitted when space is available and it does not interfere with employee activity.

The official schedule is posted in the Gym. This schedule is subject to revision,

Admission through the gates of the Laboratory to use the Swimming Pool and Gymnasium is controlled by the Security Office. However, members of employees' families are permitted to enter the Laboratory to use the Pool and Gym if they:

Are accompanied by an employee, or are in possession of a Season Pool Pass, or are in possession of a Temporary Identification Card issued by the Security Office.

Tennis Anyone?

With the approach of summer, it is anticipated that the tennis courts will be in greater demand. There will be times when all six courts will be in use and players will be waiting on the sideline for "their turn."

Since our courts are not scheduled or reserved except for tournament finals, they must be used on a first-come, first-served basis.

Since the majority of employees have limitations on their time for tennis, family members are requested to try to play tennis at times other than the noon hour and immediately after five. The cooperation of all concerned will be appreciated.

The tennis courts are not a safe playground for young children. Parents are requested to keep their toddlers and tricyclers off the courts.

Tennis did not earn the title of "Gentlemen's Game" without reason. All players and spectators are expected to exercise sportsmanship and conduct themselves with decorum. Obviously, outbursts of temper have no place on the court.

In addition, the rights of players on adjacent courts must be considered. Please wait until action has terminated temporarily before crossing behind a player for any reason. Ask politely for the return of an errant ball.

Please remember these rules:

- 1. All players on the tennis courts must wear tennis shoes or sneakers. Street shoes will damage the court surface.
- 2. Tennis has first priority. Handball or other activities can be accommodated only when there are empty courts and there are no tennis players waiting on the sidelines.
- 3. When all courts are in use, Singles games should be deferred. Courts should be used for Doubles.
- 4. Tennis courts are not reserved except for the finals of the BERA Tennis Tourna-

BERA has some tennis rackets available for loan. If you wish to play and don't have your racket with you, or you want to try out your tennis game before investing in a racket, you may borrow a racket on a daily basis. The BERA rackets are not for longterm loan. Rackets may be borrowed daily before 4:30 p.m. from D.M. Schaeffer (Ext. 2322) in the Administration Building, 40 Brookhaven Avenue on a first-come-firstserve basis.



Jim Ryan of Central Shops can probably claim the distinction of having the largest trophy displayed in his living room. This replica of the Lambert Trophy was won by his son, James, who plays defensive tackle for Dartmouth. Son James, 6-foot, six-inch, 247 pounds, played in all of Dartmouth's games last season without injury. Proud Pop brought the trophy in for all the boys in Central Shops to see last week.

Gymnasium Locker Rooms

The mens and ladies locker room facilities at the gymnasium are available for use on Saturdays, Sundays and Holidays throughout the daylight hours.

Employees or spouses requesting such useage will be issued a key for the locker room at Police Headquarters upon presentation of their I.D. Card.

This system which has been instituted is on a trial basis.

The Art Of Berkner Hall

When the Berkner Hall Cafeteria com-

plex was finished two years ago, many who

applauded the architecture realized that it

offered an excellent context for the exhibi-

tion of contemporary art. Furthermore, it

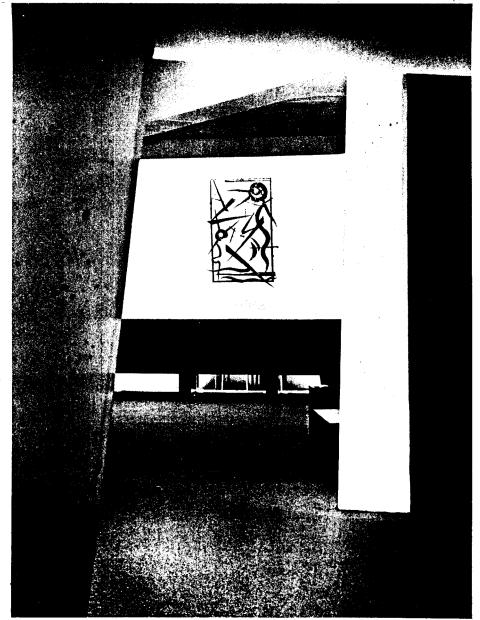
was felt that the incorporation of appropri-

ate art would serve to warm and humanize

panded its usual format of exhibitions to include the showing of works of art throughout the Berkner Hall building. It has been

the otherwise quite chaste architectural ambience. The quality of the architecture dictated that the art should be of the highest quality also.

Thus the BERA Art Committee ex-



The Sun, The Moon, And The Stars II

Herbert Ferber's sculpture, (above, and right) on loan from the Whitney Museum of American Art, was originally commissioned for a temple in Cleveland. It was intended to represent the idea of creation with the abstracted forms of sun, moon and stars supplying the iconography. Its innate strength is manifest in the ease with which this remarkable sculpture illumines a scientific environment as it would a religious one, and for the way in which it represents human as well as cosmic creativity. Ferber is recognized as one of America's foremost sculptors of the older generation and has an international reputation. He pioneered in developing the open sculptural form of cubism in

Diamond News by Dean Easler

Last week found us all celebrating Memorial Day and also (at least for certain teams) some memorable ball games as well.

Brookhaven League action has the Old Timers winning 9-5 over AMD. After having his contract released by the Dirty Sox, Mike Zguris shows signs of shaping up for the Old Timers as he homered with one on in the first inning to start his team rolling. Bob Barone countered for AMD with a two run homer in the 7th, but AMD fell short as the Old Timers remain undefeated. A pecking offense with timely singles and good defense enabled the Blue Jays to defeat Metallurgy by a 10-5 score. Metallurgy had all the home runs in the game which was three; one is unknown but J. Crow and L. Snead each had one and Snead claims that Red Carstens served up the gopher balls.

National League action saw the Pop-Ups cool down the power attack of S & M as they won 5-2 in a well played game with no home runs. Both teams are now 2-1 on the season. Chemistry overpowered the Deadwoods 23-9 as D. Seebeck a converted outfielder won his first game on the mound and also went four for five at the plate. Home run power was supplied by Tom Iarocci, Doug Foy, Ron Simm and John Yondell. For the Deadwoods Dick Sutter had two homers with one being a grand slammer. The Six Pax posted their third win in as many games as they won 13-6 over the Bubble Boys. Joe Nardi homered for the Bubble Boys in that match.

In the Laboratory League it was the Bio-Meds winning over the Survivors by an 11-

Jets Ticket Reservations

The Recreation Office door will open from 5:15 p.m. to 6:30 p.m. Monday Evening, June 14, to take ticket orders for the 1971 Jet season games at Shea Stadium.

BERA has 20 seats for each of the seven home games located in Reserve Section No. 23, which are priced at \$8.00 each.

In an effort to make tickets available to as many interested employees as possible, the following sales procedures will be observed.

1. Tickets are intended for the employee and his immediate family. It is understood that a single employee might wish to purchase a ticket for his or her escort.

2. An employee is entitled to purchase two tickets for one game only. (This restriction may be lifted if warranted by sales).

3. Ticket reservations must be made in person. No telephone orders will be accepted.

4. Payment must be made at the time of order. Check payable to BERA, please. 5. Tickets will not be returnable or acceptable for refunds or exchange at the Recreation Office. Refunds or exchanges should be made at the Ticket Office at Shea Stadium.

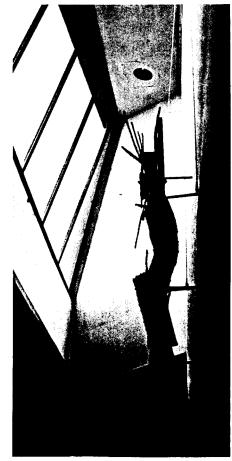
	Home Schedu	ıle
Sunday	October 17	Buffalo
Sunday	October 24	Miami
Sunday	November 7	Kansas City
Sunday	November 14	Baltimore
Sunday	November 28	San Francisco
Sunday	December 12	New England
Sunday	December 19	Cincinnati

3 score with the game's only homer hit by Bob Bores. Grapevine information has it that the Charlie Browns vs. Phoubars game was worthy of note but no report was received on that contest - sorry fellars.

fortunate in being able to obtain apropriate works on loan from individual artists, museums and private collections. Although works are sometimes shown by artists with some connection with the Laboratory, this is done only when the works themselves are suitable to the surroundings and conform to the highest professional standards. A year ago a major contribution to this program was made by Governor Nelson A. Rockefeller when he loaned Brookhaven Henry Moore's "Nuclear Energy" for

Eventually it would be desirable to have a more permanent collection of art works at the Laboratory, particularly in Berkner Hall, and efforts have been made in that direction. Currently, for example, The Elsa Collins Fund exists for the purchase of a work of art in memory of the late Mrs. Collins, who played a large role in the artistic activities of the Laboratory; those who wish to participate may send a contribution to Virginia Sayre, Building 460.

In the meanwhile we are indebted to the artists who are currently loaning us their work: Thelma Becherer, Malone Dietrich, Sidney Guberman, and to the Whitney Museum of American Art for the loan of Herbert Ferber's sculpture.



Classified Advertisements

Positions Available

MESSENGER (1) - Staff Services. Application deadline: June 17, 1971.

PART-TIME WAITRESS - To work for occasional parties, etc., BNL Center.

CLERK - Applied Mathematics Department.

TECHNICAL TYPISTS - American Institute of Physics, BNL.

COPY EDITORS - American Institute of Physics, BNL. REFRIG. & AIR CONDITIONING ENGR. (1) - Plant Eng. & Planning. Application deadline: June 21, 1971.

Autos & Auto Supplies

64 BUICK LE SABRE - Ps/pb, excel cond, V8, auto trans. J. Fontana, 744-2821.

62 COMET - 4 dr, auto trans, clean, runs well. \$100. Ext. 2712, 289-0791 after 7.

64 CHEVY BELAIRE - 4 dr sedan, w/rebuilt eng & 4 good tires. \$450. 286-9705.

67 FORD FALCON - Good cond, low mileage, good tires, radio, auto trans, visitor leaving. \$850. Antonini,

66 CHEVY IMPALA SS - Sm V8, 2 dr, vinyl hdtp, bckts, console, new w/w tires, eng to tail pipe new, r/h, tinted glass. Dom, 281-8044 after 5.

66 DODGE POLARA STATION WAGON - 9 psgr, very nice cond. 286-9260 eves.

68 VW SQUAREBACK - 18,000 mi, excel cond. \$1400. B. Sick, Ext. 439, HR3-3693.

62 CHEVY IMPALA - Auto trans, ps/pb, good rubber. \$100. J. McKoy. 732-5271.

60 CHEVY 6 CYL ENG - Recently rebuilt, auto trans, 3000 mi on eng. Asking \$100. 924-4228.

64 CHEVELLE SS - Rebuilt 283, 4 spd Hurst, 4 new tires, new paint job, must see to appreciate. \$950.

61 VW BUG - W/new motor, sun roof, excel running cond. \$350 firm. Chourey, Ext. 7205.

61 CHEVY - 4 dr sedan, auto trans, body & int rough but it runs well. \$50. Ext. 7118, 289-5770 after 6.

4 RADIAL TIRES - Almost new, 195-14 (7.75x14) w/w, only 4 mos old. Ext. 423.

TIRE - 7.35x14 b/w, good cond. 475-5894.

53 - ½ TON CHEVY PICKUP - 1963-283, eng needs work, best offer. Mike, JU8-9890 after 5.

66 VOLVO 1225 STATION WAGON - 31,000 mi, needs tires. \$1200. Ext. 7581.

65 FORD CUSTOM - 352 V8, 4 dr sedan. Ext. 7323, 475-6288 after 6.

61 CHEVY IMFALA - 4 dr sedan, r/h, ps, good tires, new exhaust system, good running cond. \$125. G.A. Smith, Ext. 7676.

60 CHEVY IMPALA - 4 ar sedan, auto trans, ps, 6 cyl. 727-7724 after 6.

62 CHEVY PICKUP TRUCK - Asking \$450. 727-7724

65 BUICK SKYLARK GRAN SPORT - 400 cu in, 4 spd, new tires, ps/pb, mags, clean, good cond, must sell. Paul, 286-8544.

TIRES - 1 ea 7.60x15, 1 ea 8.85x15 snow, 2 ea 6.70x 15, 1 ea 7.75x15 snow. Whitey, Ext. 2179.

68 BMW 1600 - Dk green, Michelin XAS tires, am/fm, dealer serviced, excel cond. 475-5894.

67 PONTIAC VENTURA - Ps/pb, new rubber, V8, auto trans, excel cond. \$1000. R. Diem, Ext. 2152.

62 VW - 65 eng, excel running cond, good tires, r/h.

64 CADDY LIMO - Good cond, want to get a new car. Pete's Limo Service, 732-7625 after 4.

Boats & Marine Supplies

Employee's Signature

Send to: Brookhaven Bulletin, 40 Brookhaven Avenue

BOAT TRAILER - Galvanized, for 12-15' boat up to 900 lbs. \$100. 236-0798.

20' BAY CRUISER - F.W. cooled inboard, under 100 hrs, sleeps 2, like new. Asking \$1400. Ricky, 286-0124.

1968 MERCURY OUTBOARD - 9.8 hp, good cond. \$100. C. Barrett. Ext. 433, 325-0013.

24' FLYBRIDGE SKIFF - 130 hp fresh ship to shore radio, compass, depth sounder, head, twin bunks, R.D.F. 567-3885 after 5.

20' FIBERGLASS CRUISING SLOOP - Sleeps 4, lots of equipment & extras, low price. Ext. 2993, 744-9436.

 ${\sf SAILBOAT-17} \ {\it Lightning-rigged, fiberglass hull,}$ dacron sails. \$400. 286-8849. MERCURY GAS TANK - 6 gal, good cond. \$10. 928-

2954 after 5.

16' THOMPSON - 40 hp Johnson elec, boat & eng 1964, excel cond. Asking \$600. Lloyd, Ext. 388, 286-

19' PENBO - Cabin, 35 hp Evinrude, extras. 744-2992.

Miscellaneous

65 APACHE - Hdtp camping trailer w/canopy, excel cond. \$550. T. Honnett, 283-2169.

DINETTE SET - Formica top, 6 chairs, good cond. \$50. 288-4219.

2 CASTRO CONV SECTIONALS - Matched, 4 ft, brown tweed, like new. \$300. George, Ext. 657, 588-2328 after 6.

GE CONSOLE TV - Old but still works. \$15. 744-3744. STEREO RECORD PLAYER - W/2 speakers, used 14 mos. New \$135, now \$75.744-8689.

BABY THINGS - Wooden high chair, bottle warmer, baby bath & other misc baby things. 744-8689.

CLOTHES SALE - Dresses, coats & shirts, tennis dress, cape & shirt, sweater, excel cond, 10-12. 50¢ to \$5. 744-8689

CRIB W/MATTRESS - Excel cond, cost \$75, now \$25; TV, used 16 mos, excel cond, new \$129, now \$70.

GE WASHER & KELVINATOR DRYER - Good cond, reasonable, must sell- Bob, 281-4371 after 5:30.

CUSTOM MADE CONV COUCH - Contemporary, sleeps 2, slip cover incl. Paid \$500, asking \$100. J. Ferrero, JU4-6019 after 5.

SPANISH GUITAR (TATAY) - Hand made, w/case. Orig \$400, best offfer, LT9-3480 after 6.

DOG OBEDIENCE CLASSES - Begin 6/28, 10 wks of basic training for \$25. Your pup can be obedience trained by Labor Day. P. Warner, 728-0273 after

2 BERA TICKETS FOR BASEBALL GAME - Mets vs Houston, Sunday 7/25. Ext. 2977.

NORWAY MAPLE TREES - 8-12' high, for shade on your lot. \$6 ea. Paul, Ext. 2222.

DISHWASHER - Works well, very good cond. Asking \$75. 924-4228.

RIDE ON GRASS MOWER - '68 Ariens Fairway Deluxe, 5 hp, 4 spds fwd, neutral, reverse, foot-clutch brake, 5 cutting hgts. Cost \$340, sell \$130. 929-4261.

24" GAS STOVE - 4 burners, oven & bottom broiler, white, excel cond. \$25, 878-1859.

COLONIAL COBBLERS BENCH END TABLE - \$5: child's maple rocking chair, \$3; girl's white desk, needs refinishing but is usable, \$5; girl's tap dancing shoes, size 11/2M, \$2. Ext. 2120.

SWIMMING POOL - 24' diameter, 4' deep, above around Oceanic, Diatomeous earth SS filter, safety ladder, skimmer, extras. \$200. JU1-8412.

LG "BLAZON" ROCKING HORSE - Very good cond, pd \$24, selling \$8; wicker dressing table, very good cond. \$5; baby chifferobe, grey wood, \$10. 878-1859.

AIR CONDITIONER - Westinghouse Mobilaire 5000, 5000 BTU, 110V, \$45; 10" Murray tricycle, like new, \$5. C. Briening, Ext. 2430.

MAPLE DINING RM - Hutch, deacon bench, 2 capt chairs, dropleaf table, ladder-back chairs, rug. All for \$175. Whitey, Ext. 2179, JU1-6367.

3 PC SECTIONAL SOFA - Rose beige, w/blue on blue slipcovers, all good cond. \$35 (will deliver in Suffolk). Bobbie, Ext. 2179.

MARVEL ELEC BASS AMP - 20 watts, 12" speaker, can be used for other elec instruments. \$50. Dave, Ext.

ELEC "HOLLOW BODY" BASS GUITAR - 2 heavy duty pickups, vol & tone controls, like new. \$60. Dave,

TRACK SHOES - Worn twice, size 9½. \$9. Dick, Ext.

CREE TRAVEL TRAILER - 18', sleeps 6, gas & elec lights, gas stove w/oven, refrig, self contained, excel. \$1800. Ext. 586.

YARD TRACTOR - 7 hp, geared way down, 3 spd. \$75. 588-5833.

RADIAL SAW - 10" Craftsman plus stand, casters light, hardly used. \$200; plus accessories, \$280. 286-

Classified Ad Policy

Ext. 2593.

Deadline is 12 noon Friday for publication the following week.

- 1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees
- 2. All items for sale or rent must be the advertiser's
- 3. Ads for material acquired for resale in association with
- 4. Firearms offered for sale or trade may not be brought on site.
- 5. Ads not carried because of space restrictions will be held for publication in the next issue
- 6. Ads are run only once and must be resubmitted if they
- 7. Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employees

For Sale: Auto & Auto Supplies For Sale: Boats & Marine Supplies For Sale: M scellaneous	Wanted Carpools Lost & Found	Check x the heading applying to your ac Print or type your ad in 20 words or les
Ads concerning property for sale or rent canno Office of the Brookhaven Bulletin, Room 112,		pecial Real Estate Ad forms are available at the
		A) 0.0
Employee's Signature		(Name & Phone No. To Call)

RHODODENDRONS - 2-3' heads. \$6. ea. Rich, Ext.

EMERSON TV RADIO CONSOLE - 1955 vintage. 475-9398 after 5.

FREE - Piano, fair cond, haul it away. 475-9398 after

SURFBOARD - 7'6" Hobie, very good cond. \$55. 581-0932 after 6.

67 FRANKLIN TRAVEL TRAILER - Sleeps 8, self contained, extras. 281-6325 after 6.

AIR CONDITIONER - RCA 7500 BTU, 10 yrs old, good cond. \$25. Willen, Ext. 7308, 744-6423.

AIR CONDITIONER - Westinghouse 15,000 BTU, 220 v. \$150. Bob, 924-8456.

GUITAR - Martin D-28, 2 yrs old, w/hard case. List \$435, sell \$300. A. Pate, 286-8835.

TENNIS RACKET - Professional, Maxima, used only a few times. D. Shreeve, 286-8807.

FREE KITTENS - 1 tiger, 2 blk & white, trained, 8 wks old. 475-3792.

PORTABLE RADIO - 4 band, am, fm, mb, sw; 15 transistor. Value over \$50, sell \$30. Ken, Ext. 7668.

BUILT-IN OVEN & COUNTERTOP STOVE - Gas, used, Modern Maid stainless steel. \$40. MO7-7997.

TV-AM RADIO-PHONO CONSOLE - \$25; portable oven broiler, \$8; dual drop-side crib, \$5. 286-0881. SECTIONAL CORNER SUITE - 4 pcs, \$45; dbl dresser w/mirror, \$30; round redwood patio table & 2 benches, \$20, 286-0881.

COLLECTORS ITEM - Brass filigree ornamental panels, 2-7"x24", 2-51/2"x24", in wooden frames. \$30. Ext.

ELEKTROLUX TANK VACUUM CLEANER - Good cond; folding ironing board, good cond. \$20 takes both. 286-3742.

TEACH YOUR CHILD RESPONSIBILITY - With a pet, free kittens, 2 males, 2 females, all cute. 286-0523 af-

RUNNING (TRACK) SHOES - Size 5½, almost new. \$6. 286-8544.

APACHE "BUFFALO" 1967 - Sleeps 6, dinette, ice box, toilet, canopy, spare tire, excel cond. \$600. Geo. Stenby, Ext. 2187, 475-5336.

RUG - 12x15 Wunda-weave nylon, moss green, \$75; colonial design rug, 8x12, \$25; cedar chest, oak, \$35.

YARD SALE - 487 Gibbs Pond Rd near Smithtown Blvd, Lake Ronkonkoma, pr lounge cane chairs, 6/12, 10-4 pm. JU8-1889.

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

SOUND BEACH - Custom 4 bedrms, 3 full baths, plus income 3 rm apt, w/w, s/s, appliances, fin bsmt, landscaped, pvt beach rights, many extras. 744-2004

ROCKY POINT - 3 bedrm ranch, walking distance to beach, fenced property. \$24,000. 744-6639 after 4. STONY BROOK SHORES - 7 rm, 3 bedrm ranch, ap-

pliances, extensive landscaping, fireplace, deeded priv beach, playground & waterfront park. \$48,000. Ext. 7630.

SELDEN - 4 bedrm colonial split, 11/2 baths, fam rm, din rm, att garage, bsmt, lg fenced back yard, s/s, 20 min from Lab, 10 min from Smith Haven Mall, immed avail, 3 yrs old. \$25,000. 732-5945.

WADING RIVER - Quail Hollow, Cape Cod, 3 yrs old, hw heat, full basement, 2 car garage. Large wooded corner plot. \$32,900. 473-2349.

FURN HOUSE - For summer months in Bellport Village, walking distance to stores. 286-8945.

FURN RM - Motel type, priv bath/entrance. 281-7844

BAYPORT - Charming 1851, furn, 1 yr 9/1, mod kitchen, 11/2 baths, fireplace, 6 rms incl la studio (or storage), barn, walk to village, bay, buses. Ext. 2962, HR2-1397.

3 BEDRM HOUSE - Furn, for July & Aug, Pt. Jeff area. 928-0208.

WADING RIVER - 2 bed, liv w/fp. hw heat, large wooded plot. \$300 mo. 1 yr lease. 473-2349.

SUMMER RENTAL - Rocky Point, basement apartment, liv rm/bedrm, la kitchen/din, bath, sep entrance, 3 block walk to Sound. Quiet dead-end st. \$525 season. 744-2453 after 6.

Wanted

BABYSITTING - Mother of 2 will babysit in her home in Bellport, 286-2412.

UTILITY TRAILER - Preferably w/pickup body. Ext. 7642.

AQUARIUM SUPPLIES - Tanks, filter, heaters, etc., for research project in mercury pollution. C. Hohberger,

GOOD HOME - For 5 yr old Lab Ret, blk, good w/ children, bred well, papers, shots. Rizzo, Ext. 2717,

CAMP TRUNK - For future campers, reasonable shape. 744-5458.

TRADE - '65 Chevy Impala conv, V8, 4 spd stick, in excel cond; for Chevy station wagon in equal cond. F. Folde, Ext. 567.

WICKER COUCH - Willing to paint it & pick it up. Kathy, 277-1594.

RIDING LAWN MOWER - Minimum 8 hp, 36" cut, must be in good cond. 878-2172.

PEOPLE - Interested in BNL group flight to Europe. \$240 round trip, R. Horwitz, Ext. 2725.

USED RACING BICYCLE - In good cond, 10 gears. D.

Shreeve, 286-8807. UPTON NURSERY SCHOOL - Students to build readi-

ness for elementary school, openings for 3 & 4 yr olds. Mrs. Mohring, 929-6744.

POSITION W/CHILDREN - Permanent or temporary. English governess, Riverhead area. Mrs. Rooney, 734-

SUMMER VACATION PROBLEMS? - Reliable young man will live in your house and/or care for lawn, pets, etc. A. Sparrow, 286-8544 after 6. FOREIGN CARS - In need of major or minor repairs,

expert factory trained mechanics, prompt service, free estimate. Ext. 2912. 2 RIDING HATS - Size 6% (smallest size). MacKenzie, Ext. 572.

YARD MAINTENANCE WORK - Lawn, shrubs, gardens by experienced young man, South Shore area. 286-8544.

Carpools

SUMMER DRIVER WANTED - To compl existing carpool from Exit 52 (or further west) on LI Expwy. Elliot. Ext. 2103.

Lost & Found

LOST - Boy's tan zipper jacket. Ext. 2993, 744-9436. FOUND - Change purse outside Cafeteria. Nick, Ext.

Cafeteria Menu Week Ending June 17, 1971

Friday, June 11 Manhattan Clam Chowder Pot Roast of Beef w/Brown Gravy & 1 Veg. .85 Fish 'n' Chips w/Tartar Sauce .75 Poached Haddock w/Creole Sauce & 1 Veg. .90 Monday, June 14 Chicken Soup Barbequed Roast Pork & 1 Veg. .90 Jumbo Knackwurst & Sauerkraut w/Mashed Potatoes .80 Macaroni & Chopped Beef Spanish Style & 1 Veg. .85 Tuesday, June 15 Puree of Split Pea Soup Beefsteak Pie w/Vegetables & Biscuit Crust .99 Southern Fried Chicken & 1 Veg. .85 Stuffed Cabbage & 1 Veg. .85 Wednesday, June 16 Vegetable Soup Beef Hash w/Chili Sauce .85 Broiled Link Sausages w/Scrambled Eggs & French Fried Potatoes 90 Florida Shrimp Louisiana Thursday, June 17 Cream of Mushroom Soup Pork Chop Suey & 1 Veg. .90 Sliced London Broil & 1 Veg. .95 Cheese Omelet w/Bacon Strips & French Fried Potatoes .80

Going Up?

The costs of operating the Cafeteria are not immune to the pressures of increased costs of food and labor. A recent increase in the wage scale of cafeteria employees added to the continuing increase in the cost of food, requires that menu prices be adjusted accordingly.

Effective on June 14, most prices at the Cafeteria will be raised as follows: Many entrees including salad plates, all sandwiches including hamburgers, all beverages except coffee and hot tea, and some desserts will be raised 5¢. Side orders of vegetables will be raised 2¢.

Summer Season Starts At Pool

Summer is fast approaching and with that comes the start of a new season at the Swimming Pool. So prepare now to have your season pass bought and ready to use on the very first day.

Season passes may now be purchased at the Recreation Office (9:00 a.m. - 1:00 p.m.) or at the Pool Office during its open hours beginning June 7, 1971.

The following schedule of rates and times will be in effect for the Summer Season which begins on June 21st and continues through September 3rd. Schedule

Open Weekdays Monday through Friday 12:00 noon - 1:30 p.m. Employees Only (Must have Season Pass). 1:30 p.m. - 9:30 p.m.

Employees/Family/Visitors.

Rates

Season Pass

Employee or Family Member \$10.00 Family (Same Household) Daily Single Admission

Employee or Family Member 50¢

Visitor 75¢

(No Single Admissions 12 noon-1:30 p.m.)